

CLAIMS

1. A resin compound used for fabricating an interlayer dielectric of a printed wiring board, wherein the resin compound has a composition comprising an epoxy based resin which includes an epoxy resin curing agent having 5 to 25% by weight of nitrogen and maleimide compounds which have thermosetting properties and being free of halogen elements, and that the resin compound is formed by dissolving the composition in an organic solvent.

2. The resin compound used for fabricating the interlayer dielectric of the printed wiring board as set forth in Claim 1, wherein the epoxy-based resin comprises epoxy resins having two or more glycidyl groups per molecule and polymers having crosslinkable functional groups within a molecule and a crosslinker which is added as necessary, and a phenol novolak epoxy resin curing agent containing triazine rings within a molecule.

3. The resin compound used for fabricating the interlayer dielectric of the printed wiring board as set forth in Claim 2, wherein the epoxy resins having two or more glycidyl groups per molecule are free of halogen elements and are any one or more of bisphenol A epoxy resin, bisphenol F epoxy resin, novolak epoxy resin, cresol novolak epoxy resin, and glycidylamine epoxy resin.

4. The resin compound used for fabricating the interlayer dielectric of the printed wiring board as set forth in Claims 2 or 3, wherein the polymers having crosslinkable functional groups within a molecule are any one or more of polyether sulfone resin having a hydroxyl group at a terminal, polyvinyl acetal resin having repeated hydroxyl groups within a molecule, and phenoxy resin.

5. The resin compound used for fabricating the interlayer dielectric of the printed wiring board as set forth in any of Claims 2 to 4, wherein the phenol novolak epoxy resin curing agent containing triazine rings within a molecule comprises one or two of melamine and benzoguanamine and a compound obtained from a condensation reaction with phenols and formaldehydes and has 5 to 25% by weight of nitrogen content.

6. The resin compound used for fabricating the interlayer dielectric of the printed wiring board as set forth in any of Claims 2 to 5, wherein the maleimide compounds having thermosetting properties are any one or more of N,N'-(4,4-diphenylmethane)bismaleimide, bis(3-ethyl-5-methyl-4-maleimidephenyl)methane, 2,2-bis[4-(4-maleimidephenoxy)phenyl]propane, and thermosetting maleimide compounds obtained from Michael addition reaction of these maleimide compounds and polyamines.

10. A resin applied-copper foil constituted by forming a resin layer on a surface of copper foil employing the resin compound for fabricating the interlayer dielectric of the printed wiring board as set forth in any of Claims 1 to 6.

11. The copper-clad laminate manufactured by the use of the resin sheet for forming the insulating layer as set forth in Claim 9.

12. The copper-clad laminate manufactured by the use of the resin applied-copper foil as set forth in Claim 10.